Summary of Investigation

For
Pabco Building Products L L C, DBA Pabco Gypsum, Rancho Cordova CA

Subject: Surface Burning Characteristics of Nominal 15.9 mm thick PABCO QuietRock ES Type X Gypsum Board
Reference: R7094 / 4787010993

December 2nd, 2015

The following is a summary of the test results obtained on gypsum wallboard designated by Pabco Building Products L L C, DBA Pabco Gypsum as “Nominal 15.9 mm thick PABCO QuietRock ES Type X Gypsum Board” under Project 4787010993. The tests were conducted at ULC’s test facility in Toronto, Ontario on November 30th, 2015 in accordance with CAN/ULC-S102-10, Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies, 7th Edition.

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The sole purpose of this investigation was to provide fire test data for the gypsum wallboard submitted and tested in accordance with the requirements of CAN/ULC-S102-10. This data should not be considered representative of test results for other gypsum wallboard in the absence of testing the gypsum wallboard in accordance with CAN/ULC-S102-10.

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Sincerely,

[Signature]
Stanis Yu
Project Handler
Building & Life Safety Technologies

Reviewed by:

[Signature]
Beny Spensieri, Jr.
Project Handler
Building & Life Safety Technologies
SAMPLE DESCRIPTION AND PREPARATION

The gypsum wallboard was submitted for testing in ready-to-test form and designated “Nominal 15.9 mm thick PABCO QuietRock ES Type X Gypsum Board”. Details of the materials used in the construction of the gypsum wallboard were not provided nor investigated. The gypsum board consisted of two layers of gypsum board adhered together. One layer was approximately 6.5 mm thick and faced with a beige paper facing and the other layer was approximately 8.5 mm thick and faced with a brown paper facing. Three boards measuring 2440 mm long by 610 mm wide were butted end-to-end to create a 7320 mm long test sample. Three test samples were prepared and conditioned to constant mass at a temperature of 23 ± 3°C and a relative humidity of 50 ± 5% prior to the test.

Due to the rigidity of the test samples, supplementary means of support was not required. The test samples were installed on the ceiling of the tunnel furnace with the beige, paper-face exposed to the gas burners. A 350 mm long by 560 mm wide by 1.6 mm thick, uncoated, steel plate was placed on the specimen mounting ledge in front of and under the specimen at the fire end of the tunnel furnace “upstream” from the gas burners to complete the 7620 mm chamber length. An airtight water seal was maintained around the furnace lid during the test.

TEST METHOD

The tests were conducted in accordance with CAN/ULC-S102-10, Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies, 7th Edition.

This method defines the relative surface burning characteristics under specific test conditions. Although the procedure is applicable to materials, products and assemblies used in building construction for development of comparative surface spread of flame data, test results may not reflect the relative surface burning characteristics of tested materials under all building fire conditions. Test results relate only to the items tested.

SURFACE BURNING CHARACTERISTICS

A summary of the individual test results is tabulated below. Graphical plots of flame spread and light transmission data are attached. The test results relate only to the actual samples tested.

<table>
<thead>
<tr>
<th>TEST No.</th>
<th>SAMPLE DESCRIPTION</th>
<th>CALCULATED VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>FLAME SPREAD VALUE (FSV)</td>
</tr>
<tr>
<td>1</td>
<td>Nominal 15.9 mm thick PABCO QuietRock ES Type X Gypsum Board</td>
<td>2.0</td>
</tr>
<tr>
<td>2</td>
<td>Nominal 15.9 mm thick PABCO QuietRock ES Type X Gypsum Board</td>
<td>3.6</td>
</tr>
<tr>
<td>3</td>
<td>Nominal 15.9 mm thick PABCO QuietRock ES Type X Gypsum Board</td>
<td>4.1</td>
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</table>
The surface burning characteristics of gypsum wallboard described herein warrants the assignment of the following rating or classification in comparison to untreated red oak as 100 and inorganic reinforced cement board as 0.

<table>
<thead>
<tr>
<th>MATERIAL DETAILS</th>
<th>RATING OR CLASSIFICATION</th>
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<tbody>
<tr>
<td>Nominal 15.9 mm thick PABCO QuietRock ES Type X Gypsum Board</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FLAME SPREAD RATING (FSR)</td>
</tr>
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<td></td>
<td>5</td>
</tr>
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